

Notice of Allowability

Application No.

10/025,331

Examiner

Bao Q Truong

Applicant(s)

BOUCHARD ET AL.

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 11 March 2005.
2. ☒ The allowed claim(s) is/are 1-7 and 9-19 now renumbered as 1-18 respectively.
3. ☒ The drawings filed on 19 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Response to Amendment

1. The examiner acknowledges the applicant's submission of Amendment for Application No. 10/025,331 dated on 11 March 2005. At this point, claims 8 have been cancelled; claims 1, 3, 9, 15, 18, and 19 have been amended. There are 18 claims pending in the application; there are 5 independent claims and 13 dependent claims, all of which are ready for reconsideration by the examiner.

Allowable Subject Matter

2. Claims 1-7 and 9-19 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowable for the combination including the limitation of:

"wherein the memory controller comprises:

a set of queues configured for storing the access requests, each of the queues being associated with a corresponding one of the plurality of memory bank; and

an arbiter operatively coupled to the set of queues for selecting a give one of the access requests therefrom in accordance with the specified bank access sequence."

Claims 2, 5-7, and 9-14 are allowable for at least the reason indicated with respect to claim 1 above.

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Claim 3 is allowable for the combination including the limitation of:

“wherein the minimum number of the memory banks for storage of the multiple copies of the given data item is determined as a function of the random cycle time of the memory banks and a random bank access delay of the memory banks.”

Claim 4 is allowable for at least the reason indicated with respect to claim 3 above.

Claim 15 is allowable for the combination including the limitation of:

“wherein the memory controller comprises:

a set of queues configured for storing the access requests, each of the queues being associated with a corresponding one of the plurality of memory bank; and

an arbiter operatively coupled to the set of queues for selecting a give one of the access requests therefrom in accordance with the specified bank access sequence.”

Claims 16-17 are allowable for at least the reason indicated with respect to claim 15 above.

Claim 18 is allowable for the combination including the limitation of:

“wherein the memory controller comprises:

a set of queues configured for storing the access requests, each of the queues being associated with a corresponding one of the plurality of memory bank; and

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an arbiter operatively coupled to the set of queues for selecting a give one of the access requests therefrom in accordance with the specified bank access sequence.”

Claim 19 is allowable for the combination including the limitation of:

“wherein the memory controller comprises:

a set of queues configured for storing the access requests, each of the queues being associated with a corresponding one of the plurality of memory bank; and

an arbiter operatively coupled to the set of queues for selecting a give one of the access requests therefrom in accordance with the specified bank access sequence.”

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q Truong whose telephone number is (571) 272-4202. The examiner can normally be reached on Monday-Friday from 6:00 AM to 3:00 PM (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A Sparks, can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

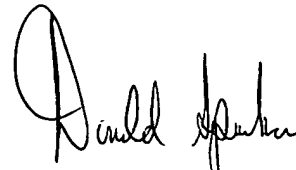
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Bao Q Truong

BT

Patent Examiner

29 April 2005



Donald Sparks

Supervisory Patent Examiner

Technology Center 2100